

Our Docket No.: 01-00007
Inventors: Black et al.
Serial No.: 10/809,214
Filing Date: March 25, 2004
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On page 3, between, lines 21 and 22 please inset the following:

BRIEF DESCRIPTION OF THE DRAWINGS

Figure 1 shows signal intensity in response to exposure of arrays to ambient conditions for 2, 3 and 8 hours, respectively when expression of housekeeping genes was measured.

Figure 2 shows signal intensity for BeadChip Arrays that were coated with polyacrylamide when exposed to ambient conditions prior to hybridization and detection (shaded bars) or that were not treated with polyacrylamide after exposure to the same ambient conditions prior to hybridization and detection (white bars).

Figure 3 shows signal intensity for BeadChip Arrays that were coated with polyacrylamide and BeadChip Arrays that were not coated with polyacrylamide after 5 days of storage.

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REMARKS

Claims 1-33 are currently pending. By the present communication new claims 34-60 have been added and claims 2, 4, 5, 7 and 12-33 have been canceled without prejudice to pursuing the subject matter of these claims in one or more applications claiming priority to the above-captioned application. Following entry of the amendments claims 1, 3, 6, 8-11 and 34-60 will be under examination.

The abstract of the disclosure has been amended to correct a formality. The specification has been amended to include a section entitled "Brief Description of the Drawings" with a description of each figure. Support for the added descriptions of the Drawings can be found in the drawings and in the text of the specification, for example, at page 31, lines 24-26; page 31, line 31, through page 32, line 5 and page 39, lines 3-8.

Claim 1 has been amended, support for which can be found in the specification, for example, at page 8, lines 8-10; page 15, lines 4-6; and page 19, lines 3-4. Claim 11 has been amended, support for which can be found in the specification, for example, at page 10, line 18, through page 11, line 3. Support for new claims 34-37 and 57-60 can be found in the specification, for example, at page 14, line 25, through page 15, line 3; page 22, lines 10-20 and page 27, lines 8-16. Support for new claims 38-56 can be found in the specification, for example, in originally filed claims 1-33.

Accordingly, the amendments do not raise any issues of new matter. Therefore, entry of the amendments is respectfully requested.

Regarding the Election/Restrictions

Applicant would like to thank the Examiner for initiating the telephone interview with Applicant's representative on March 21, 2005 to discuss the restriction requirement. Applicant confirms that Group I (claims 1-11) was elected, without traverse, for prosecution on the merits.

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Non-elected claims (claims 12-33) have been cancelled. The new claims presented herewith include several method claims that are based on cancelled claims and rewritten to depend from claim 1. Applicant requests that the new claims be entered in accordance with MPEP § 821.04.

Regarding the Specification

The Office objects to the abstract of the disclosure for reciting the phrase "wherein said" at line 8. Applicant has amended the abstract to replace the phrase "wherein said" with the phrase "wherein the." Accordingly, withdrawal of the objection to the abstract is respectfully requested.

The Office objects to the specification for lacking a section entitled "Brief Description of the Drawings" with a description of each figure. Applicant has amended the specification to include a section entitled "Brief Description of the Drawings" with a description of each figure. The description of each figure is based on the descriptions of the figures provided in the Examples as set forth above. Accordingly, withdrawal of the objection to the specification is respectfully requested.

Regarding the Rejection Under 35 U.S.C. § 112

Claim 2 stands rejected under 35 U.S.C. § 112, second paragraph as allegedly indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention. Applicant respectfully traverses the rejection. However, the rejection has been rendered moot because claim 2 has been cancelled. Therefore, withdrawal of the rejection is respectfully requested.

Regarding the Rejection Under 35 U.S.C. § 102

Claims 1-11 stand rejected under 35 U.S.C. § 102(b) as allegedly anticipated by Walt et al. (US 6,327,410 B1). In making the rejection, the Office Action alleges that Walt et al. describes microspheres placed in wells of a substrate and a thin layer of polyethylene glycol

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formed over the microspheres to hold the microspheres in place and apparently relies, at least in part, upon the description at column 17, line 47 to column 18, line 2.

Applicant respectfully traverses the rejection. The claims as amended require, a probe composition, comprising: (a) a substrate; (b) an array of different biopolymer probes covalently attached to said substrate; and (c) a stabilization polymer layer on said substrate, wherein said stabilization polymer layer coats said biopolymer probe. Walt et al. does not describe a probe composition having the combination of elements recited in the amended claims. In this regard, the description in Walt et al. relied upon by the Office is directed to the use of polyethylene glycol to hold beads in the wells of a substrate. However, here Walt et al. does not describe an array of different biopolymer probes *covalently* attached to said substrate because the polyethylene glycol holds the beads to the substrate by film formation rather than formation of a covalent bond between bead and well. Furthermore, although the biopolymer probes can be attached to the beads via covalent bonds, each bead has a single species of biopolymer probe attached. Thus, even if the beads are taken as the claimed "substrate" the reference does not satisfy the requirement of comprising an array of *different* biopolymer probes covalently attached to said substrate. Therefore, the claims as amended are novel over Walt et al., and withdrawal of the rejection is respectfully requested.

Regarding the Double Patenting Rejection

Claims 1-11 stand rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-18 of US 6,544,732 in view of Walt et al. (US 6,327,410 B1). In making the rejection the Office appears to assert that claims 1-18 of the '732 patent recite a substrate with a surface comprising discrete sites wherein said discrete sites are wells and a population of microspheres comprising a bioactive agent, wherein said microspheres are distributed on said discrete sites. The Office appears to point out that the '732 claims fail to recite a stabilization polymer layer on the substrate wherein the stabilization polymer coats the polymer probe. However, the Office Action alleges that it would have been obvious to modify claims 1-18 of the '732 to include a film of polyethylene glycol.


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Applicant respectfully traverses the rejection. Claims 1-18 of the '732 patent do not recite an array of different biopolymer probes *covalently* attached to the substrate. Rather, the claims of the '732 patent recite a substrate having discrete sites and microspheres randomly distributed on the sites (see, for example, claim 1) and that the microspheres comprise bioactive agents (see, for example, claims 8-18). Furthermore, as pointed out above in response to the anticipation rejection, Walt et al. describes use of polyethylene glycol to hold beads in wells. The combination of the cited references does not suggest any advantage to applying a polyethylene glycol film to biopolymers that are already held to a substrate by a covalent linkage. For at least these reasons, the '732 claims when taken in view of Walt et al. do not teach or suggest the combination of elements recited in the claims of the instant invention. Therefore, the claims of the instant application are patentably distinct over claims 1-18 of the '732 patent in view of Walt et al. and withdrawal of the rejection is respectfully requested.

CONCLUSION

In light of the Amendments and Remarks herein, Applicant submits that the claims are in condition for allowance and respectfully request a notice to this effect. The Examiner is invited to call the undersigned agent should there be any questions.

Respectfully submitted,


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